salt and acorn mush. The Yokuts habit of going out to clover patches in the spring and there directly eating the lush tender clover growth led to their ridicule by early settlers who referred to them as being like animals turned out to graze. There is a reference to this practice as the favorite opening of a certain myth in versions from the Wukchumni, Yaudanchi, Yauelmani, and the Tübatulabal.[189]

Two other green plants named by M.L. were ida´ma ṭo´mod, "just like cabbage," and čide´d:k, "something like cauliflower"; both were eaten cooked.

According to M.P., any kind of green vegetable food was called ṭomod, which literally meant "greens" just as we use the word in English. She too mentioned kat:k and čided:k. Another plant, mane´ča ṭomod, was boiled and eaten when young and green. Later on the sweet ripened berries were eaten with salt grass which had been chopped fine.

Nočai´yu was washed, boiled, washed again in hot water, and then eaten.

[m] Mustard which is gathered, cooked, and eaten today, was not eaten at all in old times, said M.P. Its use is a white introduction.

Waša´wai, a wild sunflower, was valued for its seeds.

Ka´sy:n, the seeds of redmaid (a Calandrinia), were greatly enjoyed; they were sweet and oily and when crushed could be pressed into small balls, in which form they were eaten.

Ka´wa is a tiny brown seed, very hard to get: "you couldn't get a cupful in a month." Parched and ground, they were added to manzanita cider. (Kawa was also given as the word for yellowjacket larvae by M.L.)

A´ṗṭu (manzanita berries) were used only for cider, although a few might be tasted "just for fun." When the berries were nearly ripe and ready to fall, women went out and cleared the ground under the shrubs of twigs, leaves, etc. Then while one or two women held forth wide-mouthed seed-beaters or sifting trays, another would shake the bushes to dislodge the ripe berries. These came down in a shower "just like hail." A high percentage fell on the ground and these were picked and scraped up; a woman who had to work alone might shake all the fruit to the ground rather than try to catch it. Asked why they did not pick off the berries, M.P. said that that method was too tedious and that only berries ripe enough to fall made really tasty cider. Taken home in the burden basket, the fruit was freed as much as possible of foreign bits, twigs, leaves, cobwebs, or bird lime. The fruit was not rinsed in water "because that would wash the taste away."

Then the berries were put on an old winnowing tray and mashed lightly with a hand stone; some women "just squeezed them hard."

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[189] Gayton and Newman, 68, abstract 57, note 2.

272 262 The mass of crushed fruit was placed in a sieve basket over a large watertight coiled basket and water was slowly poured through. When sufficient liquor resulted, it was poured out of the under receptacle and again put through the berries; this might be repeated two or three times.[190] If kawa seeds were to be added, this was done after the liquor had been drained for the last time. The drink was greatly enjoyed, particularly as it was available during the hottest summer weather. Usually it soured in twelve hours; in colder weather it might keep up to forty-eight but, as M.P. said, this seldom happened, "people drank it up too fast." It was always made up fresh as the soured liquor was not considered fit to drink.

Firewood

313 Trees and limbs for firewood, as well as for house poles and ramadas, were felled and severed by firing. A hole was dug around the base of the selected tree and filled with dry grass and chips. Oak sticks were kindled as torches and applied to the base of the chosen tree while the fire surrounding it was burning. Several of these torches were used, and as the tree began to burn they were pushed and wedged into the burning trunk. The flames were beaten back from the upper trunk. Usually two men worked together, a man and his son often undertaking the job, one to rekindle the sticks as they went out, as they often did, the other to adjust those at the tree trunk and to knock away charred parts of the tree. The workers took care not to look up the tree; if they did, the fire would creep up the trunk. When the tree finally collapsed, the main branches were severed by the same means, as were other parts that could not be broken into portable lengths.

Felling or severing limbs by fire was best done on dead or already fallen trees, but since these were not always obtainable, live trees were attacked in winter when they were drier and there was less danger of brush and grass fire. Old trees were easier to fire than young ones. Both men and women packed wood, but only men did the firing.

313 482 The load of wood was held on the back by means of a tumpline. This passed over the upper forehead -- if a woman was the carrier, across the chest, if a man -- and extended down the back under the wood and out and back over the load, each end returning over each shoulder to be grasped in the hand (fig. 13, vignettes). Long poles were dragged home with ropes of willow fibre (ho') by men. Ordinarily each family provided its own firewood; a felled tree belonged to the men doing the work. At the time of a big gathering the messengers got wood in the same way.

[171]

[190] The Miwok used a similar method but evidently added no flavoring seeds (Barrett and Gifford, 161-162).

131 The type of country in which the Northern
175 Foothill Yokuts dwelt was praised by Major Savage. He described it as land of the "Chow-chillas," but in recent times Western Mono have occupied the area and may have then.

131 This belt of country [Sandhill Crane
136 Valley on North Fork of the San Joaquin] beats
175 the region of the Yosemite or the Po-ho-no Meadows for game, if the Indians tell the truth; and with the exception of the Kern River Country, it is the best south of the Tuolumne River. It abounds in grizzly and cinnamon bears, and there are some black bears Deer are very plenty, and a good variety of crane, grouse, quail, pigeons, road-runners, squirrels and rabbits -- besides, in their season, water fowl. This territory of the Chow-chillas has
137 plenty of black acorns (their favorite acorn),
175 and besides this there are plenty of other supplies of bulbous roots.[37]

SHELTER, FOOD, IMPLEMENTS

343 Structures.---There were six different sweat houses (mos) at B.W.'s Dumna village; they were of different ages and sizes, two of them in disrepair.[38] When a new sweat house
[574] was completed, a "fandango" was given by the chief. B.W. could not describe this, save that there was "plenty to eat and everybody had a good time. Then they could sweat."

342 The houses (sa´mːs), large and spherical, were covered with "brush" thatch, not tule.

222 Foods and beverages.---Pine nuts (pa´san)
262 were obtained on trips up to the mountains or were brought down for trade by the Kechayi. The pine cone and pine tree were called ton; pasan also meant the split pine cone.

252 Manzanita cider (a´pču) was made of the
272 ripe berries which were mashed and freed of their seeds. The pulp was put in water for several hours, then the liquid was strained through a basket sieve. A hot tealike drink (či´tːl) was made by pouring hot water on the pulp; the pulp, with a little water, was eaten as a "mush" and called ča´pi. A thickening material called ča´nːt was pounded up and added sometimes [čanːt not identified].

411 Implements.---The plain bow (miko´n) was made of pine, but was gotten by trade from the Kechayi or Posgisa, as was also the sinew-backed bow (piki´l). All kinds [sic] of arrows were called tuyo´s.

412 A knife for scraping was made from the rib bones of a deer or any other large animal.

227 For fishing, a hook (mike´) was made of "some piece of bone which was boiled to make it soft and then it was bent." This was used on a string for angling [European introduction ?].
[262] Small fish eaten were: polhu´i, (sucker), wəsča´ (lamprey eel), and lu´pːč (brook trout).

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[37] Quoted, ibid., 116.

[38] "Too old to be any good, just like I am now," said B.W.

[252 262] Greens.---Clover leaves, young and tender, were eaten in the early spring, said J.R. They were eaten alone or as an accompaniment to acorn mush or manzanita cider. Clover was never dried.

Roots.---Not many roots were eaten, said J.R. Of this type of food the so-called "wild [222] potato" was most abundant and favored. In the spring, when the grass was just beginning to turn yellow, women went out to dig these roots. The season lasted about two weeks, for soon after the roots ripen the ground becomes too hard to break. They grow about three inches underground, are a little larger than one's thumb; the plants do not look like a potato plant. [Probably the Eulophus. -- A.H.G.] The roots were laid out on rocks to dry [251] thoroughly, then stored for winter. They were hung up in the storehouse in containers, as they spoil if allowed to get damp. They were boiled in water and mashed when eaten: "they taste just like potatoes."

Berries and fruits.---Elderberries were eaten, said J.R. A larger and sweeter type [222 was got up in the mountains when they went up for pine nuts. They were gathered, dried on 251] rocks up there, and brought home. They were boiled and eaten about once a week during the winter. They were never mashed. Dried berries kept a long time.

Thimbleberries[89] were picked when ripe and eaten at once, never dried. They were picked into an ordinary seedbeater held in the left hand.

Gooseberries which grow locally are very thorny, but a better, less spiny kind grows up in the mountain, larger and juicier. They turn red when ripening, and when brownish but not [251] yet black are ready to eat. They were consumed at once, never dried. They are J.R.'s favorite berry.

Wild grapes were eaten, but never dried. [272] Sometimes the fruit was crushed, producing a red juice which was drunk at once.

Nuts.---Nuts of the sugar pine were got around Coarse Gold, said J.R., but most came [221 from higher up in the mountains. The nuts were ready about August, and whole families went up 222] there to camp. Hazelnuts and a fine quality of elderberry were got at the same time. Deer meat was also enjoyed then.

[222 When the pine nuts were ripe, men climbed 48] the trees, knocked down the cones, while the women below collected them in piles. Pine needles were laid around the piles and ignited to burn off the pitch. When cool, the cones were split open by setting them butt down on a rock and striking the tip with a heavy stone. They split into about three sections and the [137]

[89] A red berry a little larger than a man's thumbnail, growing on a bush 3 to 4 feet high, the leaves the size of one's hand, the stems finger thick. The berries are not round (spherical?), are thinner than strawberries, grow in clusters at the ends of the bush and are easily picked; "something like a raspberry."

263 439 to three-quarters of an inch in diameter, carrying them in burden baskets. The salt was paid for in baskets or shell money. A quantity 263 435 of salt about as large as a pine cone would be worth 50 cents in American money, in native terms, a basket about the same size (as a pine [804] cone) or a kelan of beads (a strand the circumference of the flat hand). The Mono came over several times a year.

263 Rock salt was ground to varying degrees of fineness and eaten with meat, nuts, or seeds, but not with acorns. Rock salt to be eaten with acorns was "burned black" first. A layer of salt was covered with hot ashes, then pounded in an acorn hole and mixed with a certain "grass" that grows in or at the edges of the river. The grass and salt were mashed together then formed into balls about six inches thick. Water was added if needed to make it stick together. The grass was wrapped around the balls, making a thick covering. Several such balls were put in a hole filled with very hot ashes and left all night. In the morning the balls, from which the grass wrapping had burned, were dug out and brushed hard with a soaproot brush. A ball might be struck a blow and the pieces given to various people. Three to five balls would be made at a time, which would last an average family a whole year. [Just how this type of salt was used with acorns was not stated. -- A.H.G.]

258 263 The salt called 'alit' was derived from salt grass which is covered with a white incrustation when growing. It was gathered by hand, spread to dry on flat rocks, then pounded in a mortar hole. Then it was winnowed from a circular winnowing tray, the grass particles wafting out and the salt grains remaining. The salt was dampened and pressed into balls, but these were not baked. The balls were broken as needed for use. This salt was eaten with clover and sour berries; if it was unobtainable, then rock salt was used.

The Chukchansi "went to the plains to scrape a sort of alkali off the ground," says Kroeber.[93]

Beverages

● 272 [423] When manzanita berries are nearly ripe, women specify certain bushes as theirs, said J.R., and no one else can take the berries from them.[94] When the berries were thoroughly ripe, 222 the ground under a bush was raked clean of all leaves and twigs, until the ground was bare. The woman took a long pole and, standing close to the bush, knocked all the berries to the ground. Then she took a flat short stick to

[93] Handbook, 530.

[94] It is not clear whether a woman claimed the same bushes each year or specified them anew according to the crop promised by various bushes. -- A.H.G.

1: Gayton E-5 (1925-1930) 1948 N529 Yokuts N529
[P. 182 a] Chuckchansi

scrape the berries into piles; then, dust and all, she put them in a basket.[35] The dust was said to prevent stickiness and dripping while the berries were being handled. The berries were winnowed by being tossed on the same basket, freed of leaves and twigs that fell with them, and taken back to the temporary camp in a burden basket. There they were again picked over for further cleaning and spread on rocks to dry.

When dried the berries were mashed on a special type of stone, thin, flat, and a bit wider than one's hand. The fruit was mashed, not pounded, to loosen the seeds from the skin and dried pulp. The mashing took all day. Then the mass was put on a sieve basket which permitted the seeds to fall through; they were discarded. The desirable part was sacked and taken back to the home village where it was stored in a dry spot. This activity continued for about one week up in the mountains.

When cider was wanted three or four handfuls of the berries were put in a watertight basket about one foot deep. After they had soaked a while they were squeezed with the hands to extract all the dried juices. A sieve basket was then set over the top of a larger watertight basket and the liquor and berries poured in. When the pulp was well drained, more clear cold water was poured over it very slowly. Then the liquid was ready to drink: there was a basket about one foot high, full of cider for the family.

Grapejuice, red in color, was made from crushed wild grapes and drunk at once, said J.R.

A tea was made of "peppermint," the regular mint plant, said N.W., which grew wild. The leaves were gathered, spread on a flat basket to dry. The dried leaves were crushed by hand and stored in a covered basket. Sometimes the plants were dried, then tied in bundles up in the house roof. When wanted, a piece was broken off and put in water. Mike Wyatt said he thought this tea was not a native beverage, although it was made when his people were still living in native-type houses.

A drink which J.R. called dowunnil was first used by the Indians when tortillas were introduced, which was a long time ago (about 1840-1850). It was thought to be "good for something in the stomach." The plant was dried and hung up in an undisturbed spot as the leaves dropped off too readily. A few leaves were taken when wanted and put in water. [This sounds remarkably like the "peppermint tea" described by N.W. The cooling effect of the mint might have been desirable with the strange tortillas. -- A.H.G.]

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[35] The basket was described as 3 feet long and 1 foot wide, but this does not fit any known Yokuts basket type. It may have been an extremely elongated twined basket of the seedbeater type. -- A.H.G.

1: Gayton E-5 (1925-1930) 1948 N529 Yokuts N529
LP. 188 9] Chuckchansi

343 J.R. described a granary covered with pine
251 needles which shed water; the top was covered.
The contents remained dry all winter. To get
at the acorns a little hole was poked at the
bottom which allowed them to drop into a sack
[171] or basket. This type of granary was used here
(Chukchansi) and at Awa'ni· (Miwok).

MANUFACTURES AND UTENSILS

265 Baskets.---The following basket types were described and named by the informants N.W. and J.R. Cooking baskets (soiyun) were from 1 to 2 feet deep. Gift and washing baskets ('tewis) for the Mourning Ceremony were about 2 feet in diameter at the bottom, 3 feet in diameter at the top, about 3 feet deep. Small basket for pouring washing water (k'olis 'tewis) was said to be the same shape as the big basket. Winnowing trays (po'o'iyi) were flat, circular. Burden baskets were 3 to 4 feet deep, of conical shape; carried by means of a tumpline 2 inches wide. Seedbeaters were about 10 inches across at widest part of their oval, four inches deep, and had a little handle.

Several Chukchansi objects appear in plate 1, Part I, which shows a Yokuts ethnographic collection at the Peabody Museum of Harvard University. These are the bowl-shaped coiled basket with feather and red wool ornamentation (toward upper right, second from top); [272] the open boldly striped twine basket (left center) which was a strainer used when making manzanita cider.

525 Also Chukchansi are the six gambling sticks (bottom center) and the two pairs of hand-game bones lying at the tips of the Chukchansi arrows (bottom horizontal).

Cradles.---In N.W.'s house there is a grand-
352 son, Kenneth, about eight months old (1938).
854 All the following information was derived from that situation, N.W. speaking, Lillian, the infant's mother, interpreting.

A baby's first cradle was not made until it was born "so they would know how big to make it." The work was done by the paternal grandmother. It took N.W. three days to make K.W.'s cradle, which is described below.

The first cradle was about 20 to 26 inches long, the back being a stiff twined frame, just as for the later cradles. The foundation was a single layer of sourberry-bush roots, twined with strips of roots of a water plant.[103] The horizontal twining was in groups of three rows. The foot end was left unfinished or covered
[324 with a piece of soft hide. The whole cradle
284] was edged with a chaparral brush (Ceanothus?) binding, bound on with monoxil.[104]

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[103] Roots of a river plant with sharp edges like grass, but no flower (sarex?).

[104] A plant with purple flowers which "grows north some place" (redbud?).

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 222 a] Western Mono NS 25

Fishing

Y W 226 Fish were scarce in the upper streams in Waksachi territory, said B.O.[162] They were captured by poisoning; no spear or harpoon was used (B.O. and S.O.). (Perhaps because of the smallness of the streams in their vicinity.) A plant called ya´ohao (not soaproot, but unidentified) was mashed and scattered over the water. The fish became active, jumping around in the water, then became stupefied, when they were scooped up in fish baskets. Men prepared the poison, merely by mashing the plant leaves, but both sexes took part in capturing the fish.

Foods

Y W 263 258 Salt.---Salt was obtained from "a bush that looked like a tomato vine." While living at Čoloku (on Fisher's Ranch), S.O.'s father-in-law and his mother's sister used to gather it. To obtain the salt a pit was dug about 2 feet long, 1 foot wide, and 1 foot deep. In this a fire was built and let burn down to coals. A grating was made by laying hardwood sticks across the earth's surface and on this the plants were laid. The whole thing was fanned with a fire fan. A material then oozed out of the plants and dropped on the coals forming large lumps. Then the whole thing was covered with earth and left overnight. In the morning the pit was opened and the salt, which was now a hard large mass, was cleaned of dirt. These lumps were trimmed and sold. This salt was eaten in tiny bits with meat; it was never put directly on food or cooked with it. The plant (or grass ?) which produced this salt was called in Michahai, ti´k:t koi´yo (smells salt), in Wukchumni, a´l:t, and in Waksachi, u´nab¹. It was sometimes boiled and the liquid drunk to cure nausea. Salt or brackish springs were all called tuša´o.

Y W [264] [434]

Rock salt (koiyo, Michahai) was obtained in trade from the Eastern Mono.

● Y W ● 272 263 Manzanita cider.---Manzanita berries were gathered, mashed on a tray with a small pestle, and put into a sieve above a large clean mush basket. Water, poured over the mass, seeped through into the larger basket. A powdered plant called ča´m:t (Michahai; pasida, Spanish; unidentified) was added as a thickener and flavorer. There were four or five such flavorers known, but S.O. could not name them. The manzanita drink thickened as it stood, and people came to drink it at whatever stage they preferred. It began to sour after twenty-four to forty-eight hours and was no longer thought fit to drink. S.O. insisted that it was in no sense intoxicating.

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[162] Trout should be abundant; possibly he meant scarce in comparison with the numerous varieties of the lower foothill rivers and sloughs.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

gotten them. That village, *Che'-oo-tak*, I think was the one on Cameron Creek three or four miles north of Tulare, not south. I heard lots of times about an old place there, right close to where the railroad crosses now, but I am not sure about the name.

Finally we got tired of staying at "Fish" Rice ranch. We wanted to go back to Tulare Lake. We went back three or four times for visits when we could ask somebody to let us go on their land. But we never got a chance to stay there. Our good friends did not have any land on the lake.

We went over to Kings River and camped near the Ezra ranch. They were always good to us and we felt right to stay there.. We have lived along Kings River, at the Santa Rosa Rancheria, and on the ranches where we worked ever since.

My mother died, and I got married and now I live with my daughter. There are lots of things I forgot about how my people lived. I speak Spanish and English, Wowol and Chunut. Then I know *Tachi, Nutunutu, Wachikit, Wukchumne, Yaudanchi, Koyeti* and some others. So I have to forget some of my old Chunut things.

The Chunut had a story about how the world was made. I never knew all of it. I heard it lots of times, too. The world was all water at first. *Chukuko*, (Choo-koo'-ko) the diver duck, and *Trawm'-cawt*, the turtle, got the mud from the bottom of the water to make the world.

Chukuko tried to get the mud and Trawmcawt helped him. The mud was thrown around to make the world. *Ki'-yoo* (Coyote), *We-itch* (Condor) and *We-ha'-sit* (Mountain Lion) were about the first people made. That is about all I remember. I am sorry I forgot it.

We called the Milky Way *Yo-hote'-sool*. It is the white place in the sky made in a race between antelope and deer.

On Kern River a big mountain is split through. Once *Wahl'-wut* (Canvasback Duck) ran a race with *Lim'-ik* (Prairie Falcon). Limik cut right through the mountain and won the race.

When we saw red clouds at sunset we used to say that it would not rain the next day.

I forgot lots about the seeds and how the Indians fixed them. They made a tea from the mint which grew in the water and from the peppermint from the mountains. They also made tea from sycamore bark. They drank it and put it on sores.

7:Powers J-5 (1871-1876) 1877 NS29 Yokuts NS29

436 instance, goods which cost them at the store $5 they sell among themselves for $3, or thereabout. This is done by the old Indians, who consider an Indian dollar better than an American.

252 [173] They say that, in remote times, they were accustomed to rub their acorns to flour on a stone slightly hollowed, like the Mexican *metate*, which was a suggestion of the mouse; but nowadays they pound them in holes on top of huge bowlders, which was a suggestion of the wiser coyote. On a [172] bowlder in Coarse Gold Gulch, I counted eighty-six of these acorn-holes, which shows that they must have been used many centuries.

283 224 For snaring quail, rabbits, and other small game, they employ cords made of a kind of "wild flax" found in the Sierra. I presume this "wild flax" is milkweed (*Asclepias*).

● 272 Manzanita cider is made of a much better quality than the wretched stuff seen among the Wintūn. After reducing the berries to flour by pounding, they carefully remove all the seeds and skins, then soak the flour in water for a considerable length of time. A squaw then heaps it up in a little mound, with a crater in the center, into which she pours a minute stream of water, allowing it to percolate through. In this way she gets about a gallon an hour of a really delicious beverage, clear, cool, clean, and richer than most California apple cider. The Indians consume it all before it has time to ferment, so that they do not get intoxicated on it.

226 In the mountain streams which empty into Tulare Lake they catch lake trout, chubs, and suckers. Sometimes they construct a weir across the river with a narrow chute and a trap set in it; then go above and stretch a line of brushwood from one bank to the other, which they drag down stream, driving the fish into the trap. Another way is to erect a brushwood booth over the water, so thickly covered as to be perfectly dark inside; then an Indian lies flat on his belly, peering down though a hole, and when a fish passes under him he spears it. The spear is pointed with bone, and is two-pronged. Still another method is employed on Tule River and King's [481 River. An Indian takes a funnel-shaped trap in his teeth and hands, buoys 501] himself on a little log, and then floats silently down the rapids, holding the net open to receive the fish that may be shooting up. On Tulare Lake they construct very rude, frail punts or mere troughs of tule, about ten feet